



# Knowledge Organiser Light

Key Vocabulary	
<b>Light source</b>	An object that produces its own light.
<b>Shadow</b>	A dark area or shape caused by the blocking of light.
<b>Reflection</b>	When light bounces off a reflective surface.
<b>Transparent</b>	When light travels through an object.
<b>Translucent</b>	When some light can travel through an object.
<b>Opaque</b>	When no light travels through an object.



Thomas Young 1773-1829

Proved the wave theory of light.

A **shadow** is caused when **light** is blocked by an **opaque** object. A **shadow** is larger when an object is closer to the **light** source. This is because it blocks more of the **light**.



## What I need to know

- We see objects because our eyes can sense light. Dark is the absence of light. We cannot see anything in complete darkness.
- Some objects are the sources of light (the sun, lightbulbs and candles). Objects are easier to see when there is more light.
- Some surfaces reflect light. Objects are easier to see when there is light if they are reflective.
- The light from the sun can damage our eyes. We should not look directly at the sun and we can protect our eyes by wearing sunglasses or sun hats in bright light.
- Shadows are formed on a surface when an opaque or translucent object is between a light source and the surface and the object blocks some of the light.
- The size of the shadow depends on the position of the light source, object and surface.

We need **light** to be able to see things. **Light** travels in a straight line. When **light** hits an object, it is **reflected** (bounces off). If the **reflected light** hits our eyes, we can see the object. Some surfaces and materials **reflect light** well. Other materials do not **reflect light** well. **Reflective** surfaces and materials can be very useful...



hi-vis jacket



cat's eyes

